

REMARKS

Claims 1-24 are pending in this application. No amendments are made.

Claim Rejections Under 35 U.S.C. §103 over Onomichi in view of Ito

Claims 1, 2, 4, and 13 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Application Publication No. 2001/0005278 (“Onomichi”) in view of U.S. Patent No. 6,699,580 (“Ito”). Applicants traverse the rejections.

There is no motivation to combine Onamichi and Ito. The Office contends that Applicants suggested that the light absorption layer of Ito does not contain a dye. See Final Office Action, at 19. However, Applicants stated exactly the opposite in the response filed March 17, 2008 (“the Response”). Specifically, Applicants stated that the coating solution disclosed in paragraph [0162] of Onamichi does not contain a dye, while the polysiloxane in Ito is used with a light-absorbing dye. See the Response, at 2. Applicants further point out that the coating solution disclosed in paragraph [0162] of Onamichi is an aqueous coating solution to form a polymer easy adhesion layer (see paragraph [0128]), which is different from the infrared absorption layer (see paragraph [0066]). Therefore, Onamichi does not teach using a surfactant with an infrared absorption layer.

Further, the motivation provided by Ito to use polysiloxane does not apply to the infrared absorption layer of Onamichi at all. Ito discloses using polysiloxanes in a coating layer containing inorganic dyes such as manganese oxide and ferric oxide. See col. 5, ll. 13-45. Specifically, Ito provides two reasons to employ polysiloxanes with HLB value from 3 to 18: (a) insufficient water/polysiloxane compatibility when the HLB value is less than 3; and (b) inhomogeneity caused by foaming when the HLB value exceeds 18. See col. 5, ll. 46-55. Reason (a) does not apply to the infrared absorption layer of Onamichi because the coating solution for applying the infrared absorption layer contains organic solvents such as methyl ethyl ketone, tetrahydrofuran, toluene instead of water. See paragraph [0183]. Water is not used because, as stated in paragraph [0108] of Onamichi, some of the infrared absorption coloring matter deteriorate under high humidity. Moreover, reason (b) does not apply to the infrared absorption layer of Onamichi because organic solvents have antifoaming ability and therefore

foaming is not a concern in applying the infrared absorption layer of Onamichi. As such, one of ordinary skill in the art would not have been motivated to combine Onamichi and Ito in such a way as to reach the claimed invention.

Additionally, there would have been no reasonable expectation of success modifying the infrared absorption layer disclosed in Onamichi to include a surfactant having an HLB as recited in the claims. First, as stated above, Onamichi itself discloses using a surfactant in an **aqueous** coating solution only. The total amount of organic solvent in the solution should be less than 50% to avoid poor appearance of a coated film. See paragraphs [0162] and [0163]. As such, one of ordinary skill in the art would not have expected that a surfactant would work with an **organic** solution, such as that used for the infrared absorption layer. Second, as stated above, Ito also discloses using polysiloxanes in an **aqueous** solution. See col. 5, ll. 29-55. The specific HLB value of from 3 to 18 is picked to improve water/polysiloxane compatibility and to reduce foaming, none of which apply in an **organic** solution. See col. 5, ll. 50-55. As such, one of ordinary skill in the art would not have expected that the polysiloxanes would work with an **organic** solution, such as that used for the infrared absorption layer of Onamichi.

On the other hand, Applicants have found, surprisingly, that the addition of a surfactant having an HLB in the range of 2 to 12 and in a concentration of 0.01% to 2.0% by mass in the composition not only improves the coatability as well as the property of winding a film into a roll, but also suppresses the deterioration of the near-infrared ray absorbing dye caused by moisture. See page 55, line 21-page 56, line 15 and page 57, line 25-page 58, line 13 of the specification. Applicants point out that the near-infrared ray absorbing dye of the present invention is weak in water. It was one of the objectives of the present invention to solve the problem of deterioration of the near-infrared ray absorbing dye due to moisture. Applicants have discovered, among other unexpected results, that adding a surfactant having an HLB in the range of 2 to 12 and in a concentration of 0.01% to 2.0% by mass to the coating composition suppresses the deterioration of the near-infrared ray absorbing dye caused by moisture. See page 57, line 25-page 58, line 13 of the specification.

For at least the reasons stated above, a *prima facie* case of obviousness had not been established. Withdrawal of the rejections is respectfully requested.

Claim Rejections of claims Under 35 U.S.C. §103 over Onomichi in view of Ito as applied to claim 1 and further in view of other references

Claims 3 and 9 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito as applied to claim 1 and further in view of U.S. Patent Application Publication No. 2002/0127395¹ (“Kuwabara”). Claim 5 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito as applied to claim 1 and further in view of Japanese Patent Application 2004-202899 (“Sato”). Claims 6 and 7 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito as applied to claim 1 and further in view of U.S. Patent No. 6,703,138 (“Taki”). Claim 8 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito as applied to claim 1 and further in view of U.S. Patent Application Publication No. 2003/0186040 (“Oya”). Claims 10 and 24 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito as applied to claim 1 and further in view of U.S. Patent Application Publication No. 2003/0021935 (“Moriwaki”). Claims 11 and 12 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito as applied to claim 1 and further in view of Japanese Patent Application 2003-127310 (“Kumano”). Applicants traverse the rejections.

For the reasons stated above, claim 1 is not obvious over Onomichi in view of Ito. The deficiency of Onomichi in view of Ito is not cured by any of Kuwabara, Sato, Taki, Oya, Moriwake, Kumano, and combinations thereof because none of them suggests one of ordinary skill in the art to modify the near-infrared absorption filter of Onomichi with the polysiloxane disclosed in Ito. Therefore, withdrawal of the rejections is respectfully requested.

Claim Rejection Under 35 U.S.C. §103 over Onomichi in view of Ito as applied to claim 13 and further in view of other references

Claim 14 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito as applied to claim 13 and further in view of U.S. Patent No. 6,770,430

¹ Applicants have noted that US 2002/375766, as recited on page 4 of the Final Office Action, does not exist. Instead, US 2002/0127395 fits the description of Kuwabara.

("Kubo"). Claims 15 and 16 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito as applied to claim 13 and further in view of U.S. Patent Application Publication No. 2004/0071883 ("Ogawa"). Applicants traverse the rejections.

For the reasons stated above, claim 13 is not obvious over Onomichi in view of Ito. The deficiency of Onomichi in view of Ito is not cured by any of Kubo and Ogawa at least because none of them suggests one of ordinary skill in the art to modify the near-infrared absorption filter of Onomichi with the polysiloxane disclosed in Ito. Therefore, withdrawal of the rejections is respectfully requested.

Claim Rejection Under 35 U.S.C. §103 over Onomichi in view of Ito and further in view of Kumano and other references

Claim 17 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito and further in view of Kumano. Claim 18 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito and in view of Kumano as applied to claim 17 and further in view of U.S. Patent No. 4,948,635 ("Iwasaki"). Claim 19 has been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito and in view of Kumano as applied to claim 17 and further in view of Ogawa. Applicants traverse the rejections.

For the reasons stated above, there would have been no motivation and no reasonable expectation of success to combine Onomichi and Ito to reach a process for preparing a near-infrared ray absorption roll using a coating solution containing, among other things, a near-infrared ray absorption dye and a surfactant, as recited in independent claim 17, and evidence of the importance of the HLB range of 2 to 12 and the concentration range of 0.01% to 2.0% by mass is disclosed in the specification. The deficiency of Onomichi in view of Ito is not cured by any of Kumano, Iwasaki, Ogawa, and combinations thereof at least because none of them suggests one of ordinary skill in the art to modify the near-infrared absorption filter of Onomichi with the polysiloxane disclosed in Ito.

Therefore, withdrawal of the rejections is respectfully requested.

Claim Rejection Under 35 U.S.C. §103 over Onomichi in view of Ito and further in view of Iwasaki and other references

Claims 20 and 21 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito and further in view of Iwasaki. Claim 22 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito and in view of Iwasaki as applied to claim 20 and further in view of Ogawa. Claim 23 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Onomichi in view of Ito and in view of Iwasaki as applied to claim 20 and further in view of Kubo. Applicants traverse the rejections.

For the reasons stated above, there would have been no motivation and no reasonable expectation of success to combine Onomichi and Ito to reach a process for preparing a near-infrared ray absorption roll using a coating solution containing, among other things, a near-infrared ray absorption dye and a surfactant, as recited in independent claim 20, and evidence of the importance of the HLB range of 2 to 12 and the concentration range of 0.01% to 2.0% by mass is disclosed in the specification. The deficiency of Onomichi in view of Ito is not cured by any of Kumano, Iwasaki, Ogawa, and combinations thereof at least because none of them suggests one of ordinary skill in the art to modify the near-infrared absorption filter of Onomichi with the polysiloxane disclosed in Ito.

Therefore, withdrawal of the rejections is respectfully requested.

CONCLUSION

Applicants assert that all of the stated grounds of rejection have been properly traversed. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

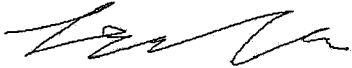
In the event the filing of this paper is deemed not timely, Applicants petition for an appropriate extension of time. The petition fee, if needed, can be charged to Kenyon & Kenyon LLP's Deposit Account 11-0600. The Office is hereby authorized to charge any additional fees or credit any overpayments to Kenyon & Kenyon LLP's Deposit Account No. 11-0600.

The Examiner is invited to contact the undersigned at the telephone number below to discuss any matter concerning this application.

Respectfully submitted,
KENYON & KENYON LLP

Date: September 23, 2008

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